

**Meeting Description:** Michigan Geographic Framework Users Meeting

**Date:** April 4, 2002

**Time:** 10:00 a.m.

**Location:** Michigan Information Center, George W. Romney Building, 10th Floor, Conference Room

I. Approval of March Meeting Minutes

Rob Surber, Michigan Information Center (MIC), stated that the minutes are done but have not been edited yet. A draft copy will be e-mailed for review, changes made, and the final copy will be posted on the MIC web site.

II. Geographic Framework Program

A. Repositioning / Version 2 Update

Rob Surber, MIC, reported that MIC has completed all repositioning work for the transportation network. The last section was Wayne/Oakland county lines. If you want a transportation layer as pre-release, let MIC know. Version 2 release is on schedule and plan to release it in a month or so. Quite a bit of attribution work is being done before release of Version 2. MIC will continue to integrate the new sufficiency, which is used to rate all state highways. This will be posted and available in Version 2. Updates to ramp work updates will also be posted as well and complete reconfigurations. New construction will be in Version 2. MIC is working with RoadSoft to provide additional updates to framework from the road standpoint. Rob will call Michigan Technology University (MTU) today to discuss what road commissions and RoadSoft users will be willing to provide as Michigan Geographic Framework (MGF) feedback. Interested in establishing a formal way to share new road information. MTU plans to start promoting feedback through the RoadSoft product in their April newsletter. There are 73 Michigan counties have RoadSoft.

Joyce Newell, Michigan Department of Transportation (MDOT), added that she suggested that MTU encourage the road commissions to confer with any geographic information system (GIS) agencies to come to agreement before it goes to MIC.

Ann VanSlembrouck, SEMCOG, added that people in the SEMCOG Transportation Department asked if there is way they can inform MIC of changes. Would screen shots work?

Rob Surber, MIC, stated that they don't want to be overly bureaucratic, what ever works is okay. MIC wants to use the different examples and at some point they may develop an online application.

Rob Surber, MIC, distributed map of sufficiency work and polygon checks. In Version 1, 13 polygon groups associated with framework. The polygons are complete in the Superior Region, North Region, and a good portion of the middle of the state. MIC will try to get new legislative district boundaries in for Version 2 – definitely will be on Version 3. May create a layer lined up with framework that is separate that people can get going with. Have not gotten to new county commissioner boundaries. Wayne County has not finalized theirs – it is still in court.

Jeroen Wagendorp, Allegan County, asked which is harder, doing sufficiency or polygons.

Rob Surber, MIC, commented that sufficiency is more work.

Joyce Newell, MDOT, explained that sufficiency is data file on condition of trunkline roadways. Changes are noted in segment breaks.

Rob Surber, MIC, added that an example of attribution collected and related into sufficiency would be annual daily traffic (ADT) counts. You could get the data from MDOT and it is mapable on framework

Joyce Newell, MDOT, added that sufficiency is a series of attributes: pavement type, pavement condition, base condition, shoulder type, shoulder condition, guard rail, on U.S. and Michigan roads.

Rob Surber, MIC, stated that this covers a lot of data that many agencies use.

Ann VanSlembrouck, SEMCOG, commented that their Transportation Department is coding traffic counts by using PR and milepost.

Joyce Newell, MDOT, stated that they do their own traffic counts. In metro areas they use ramp counts especially freeways. MDOT does not collect counts for local roads except through Highway Performance Monitoring System (HPMS).

Rob Surber, MIC, suggested that SEMCOG's people contact MDOT to be sure they don't duplicate work. If anybody wants more information about what the data is, MIC has sufficiency books for review.

Rob Surber, MIC, reported that MDOT's global positioning system (GPS) team is continuing to do field checking at the center of intersections. MIC is using the measurements to see how the repositioned linework matches positionally to control of common features. This is being done in select counties in the state. Demonstrated a map of Clinton County, a random sample of intersections using GPS. Most are below 5-meter and the highest was at 7-meter.

Jeroen Wagendorp, Allegan County, commented that they have a set available for MIC. They GPSd the section corners.

Rob Surber, MIC, stated that this will not be for everybody, but for a centerline product statewide this will help with a lot of applications. MIC will test the length measurements as reported by the engineers and doing comparisons between that and framework.

#### B. Digital Ortho Update

Sherm Hollander, Michigan Department of Natural Resources (MDNR), reported that the status map does not have much change. Most of the 1998 Series color infrared has been processed and is available on their web site. They are in the process of filling holes in the middle and East Side of the Upper Peninsula. The western Upper Peninsula is not available yet. Going to do more production work this year with MDNR funding. United States Geological Survey (USGS) funds are not available this year for matching, but hope there will be next year. The Feds say that any money the state does spend this year can be used as match money next year. The 1992 Series is in process of acquiring that are currently not available. Clinton County has been purchased and is on the web site

Rob Surber, MIC, said that he is curious about Monroe County and what the notation means.

Sherm Hollander, MDNR, responded that they are acquiring an uncompressed version of data from USGS. They inherited 20:1 digital ortho quads (DOQ) from another agency, which were used for MrSID compressions. The standards the MDNR is using are 10:1, so they are going back in and recompressing.

Joyce Newell, MDOT, added that Susan Mortel, MDOT, has had a number of requests for photography for planning studies. Most of the flights that MDOT orders are for design plans and must be of sub-inch accuracy and in most cases National Aerial Photography Program (NAPP) is not sufficient. The recommendation is that they participate in maintaining recent statewide coverages for other uses. It was obvious that there is not clear understanding of what the sources are and where they are. MDOT is recommending that they support a statewide virtual library of photography. May not solve the problems for design plans, but could save time and money. Sent copy of the Action Plan to Gary Bilow, MDNR, who provided input.

#### C. National Hydro Dataset (NHD) Update

Rob Surber, MIC, reported that the NHD workshop is scheduled and the final agenda and discussion topics are being finalized. The workshop is designed to provide feedback and it has been renamed as the Digital Hydrography Stakeholders Meeting. NHD is a significant part of the plan for hydrography in the state. There is good participation from state departments ((Different Michigan Department of Natural Resources (MDNR), Michigan Department of Environmental Quality (MDEQ), Michigan Department of Agriculture (MDOA), Michigan

Department of Transportation (MDOT), MIC)) and local governmental units, regions, Feds, non-profit organizations and academic groups. The idea is to get further direction of how base map should look.

#### D. Routing Server Update

Rob Surber, MIC, reported that MIC is making framework routable network on web, which will return travel directions. MIC saw the initial demonstration and provided testing and it looks good. In addition to this, the most of the data population will be done. MIC is putting local One-Ways in for Version 2. Also putting in address updates for Version 2 from TIGER. Alden Leatherman, MIC, has been finalizing his program and is now doing testing. Framework may have gotten 48% on straight batch match and MIC has increased that to 57% with automatic update linking of TIGER addresses. Straight TIGER is in the 60% range. MIC didn't want to add errors by pushing address ranges in there, that created new overlaps. MIC is hopeful for the RoadSoft potential of providing ongoing addresses inputs from local units of governments. Local government's supply of address ranges could be a significant source for the MGF. The routing application to developed in ArcIMS. MIC has a contract with ESRI for a lot of behind the scene server work and an on-going contract for further customization.

#### E. MAP MI

Rob Surber, MIC, reported MAP MI will be a visible application. MIC is locating golf courses and other points of interest. A lot of MapQuest type products require you to have an address. That is okay and the framework can support it, but MIC wants to do quality control by using aerial imagery to match sure the point locations are correct. This week MIC is mapping all nursing homes in state.

#### F. Imagery Workshop

Rob Surber, MIC, reported that he is working on a committee to set up a course for an imagery workshop. Some states have done imagery workshop in conjunction with National Aeronautics and Space Administration (NASA). Rob is reviewing Nevada's program. The committee will develop a workshop template for the Northeast Region affiliates.

### III. Michigan Department of Natural Resources (MDNR) Projects and Activities

Sherm Hollander, MDNR, stated there was nothing else to report.

### IV. Michigan Department of Transportation (MDOT) Projects and Activities

Joyce Newell, MDOT, reported that they are getting ready to advise the department of what physical reference (PR) numbers to use. MDOT has a CD with all framework themes and a PR Finder in Caliper format. MDOT is discussing how to deal with Versions 2 and 3 coming so quickly. May hold staff to Version 1. MDOT is working with MIC and Michigan State Industries (MSI) to move ACT 51 total certification process to framework.

Rob Surber, MIC, stated that this is a big deal this year. A by-product is that MSI is geo-registering complete set of images to the framework by section corners and intersections so it will be completely geo-referenced images as backdrops. MIC is using that as a way to look for differences.

Joyce Newell, MDOT, stated that MDOT's hope is that this will be the last set of non-GIS maps.

Eric Swanson, MIC, added that it is important to make sure that the county engineers and road commission tied into the county GIS office.

Ann VanSlembrouck, SEMCOG, commented that SEMCOG thought of having a workshop to invite county road commission, county GIS staff, SEMCOG transportation department, and SEMCOG GIS people and discuss whether they are using framework or their own centerline files and the benefit of each.

Eric Swanson, MIC, stated that the ACT 51 project will bring coordination issues to a head. The State is in a good position having a statewide consistent base at +/-10/15 feet. The county road commissions, county engineers, different base maps will all come to head quickly.

Joyce Newell, MDOT, added that the fact that MDOT is moving ACT 51 certification to framework will encourage the county road commissions to take a close look at framework.

Ann VanSlembrouck, SEMCOG, commented that she is often asked about up-to-date framework is and what the lag time once a road is certified.

Joyce Newell, MDOT, responded that they expect it to speed up the process. Framework is between 1999-2000 for all counties. Have to get 2000-2001 certification in there and are now doing 2002 certification – which is completed around July and certifies all open to traffic and certified roads by city or county between January 1, 2001 and December 31, 2001.

Rob Surber, MIC, commented that this is an attribute that says that they own it. That information can come early – maybe from RoadSoft reports.

Joyce Newell, MDOT, added that maps go out to the cities and counties the first of the year and they are to be returned to MDOT within 2-4 months. By July MDOT has to have them all so they can put in final mileage certification for funding purposes.

Eric Swanson, MIC, commented that in terms of framework maintenance there has not been a business need to feed it, but this creates the business need. After we get through the first pass of this, people want to feed it quickly, even prior to the certification process. MIC has seen this in their work with the Qualified Voter File (QVF) and its 2,000+ jurisdictions is an example. At first it was a nightmare, but now daily business process.

Joyce Newell, MDOT, added that legal system and mileage cannot be added until the road is actually certified.

#### V. Michigan Department of Environmental Quality (MDEQ) Projects and Activities Nobody present.

#### VI. Michigan State Police (MSP) Projects and Activities

Eric Nischan, MSP, reported that he attended the Customizing ArcIMS class. The system should be up for the power plant drills scheduled for May 1. Eric will be attending a critical infrastructure meeting on May 10 with all utilities. Does not to accomplish much as far as mapping the critical energy infrastructure. Eric will encourage the utilities to share their information with us. The basis for the meeting is to ensure that power companies have their critical infrastructure located and have security plans in place to address homeland security issues. MSP does not have enforcement power to tell them what to do, how to do it, or to even to give MSP the information.

Rob Surber, MIC, stated that he understood that the state has the authority to have a plan to distribute and utilize funds coming from federal government to go to local government for Homeland Security. With that plan, the state some has say.

Eric Nischan, MSP, responded that this is not tied to that. The utilities are required to have security plans in place and to show the state their plans. But state cannot tell them what to do or how to do it. MSP is trying to get the utility companies to give MSP some information.

Rob Surber, MIC, added that there are a lot of geospatial needs from and information technology (IT) standpoint that need coordination at the state level. Is the governor's office represented at these meetings?

Eric Nischan, MSP, responded yes and that the Michigan Department of Consumers and Industry Services, Public Service Commission, is also involved.

Jeroen Wagendorp, Allegan County, commented that they have found that this data is very secure.

Rob Surber, MIC, stated that the state needs to consider basic referencing needs, so that information can be shared in the case of an emergency. We need common standards, common referencing, and common ways to integrate. The data custodians can keep their data, but when needed it should fit like a glove.

Jeroen Wagendorp, Allegan County, added that when the gas line south of Plainview blew up, the concern was the shape of the metal pipes in. In many cases, they were put down 50 years ago and they rust. They are transporting gas every minute. There are going to be regular emergencies other than terrorists.

Eric Nischan, MSP, added that the focus is now Homeland Security. The state approach to emergency management is a multi-hazard approach. How we respond to the emergency depends on how good the information is.

Rob Surber, MIC, commented that many times discussions often have policy level people talking about laws but not IT people. Legislative bills being signed on security (who can driver licenses) but the geospatial IT perspective needs to be considered.

## VII. Michigan State Industries (MSI) Projects and Activities

Nobody in attendance.

## VIII. MIC Projects and Activities

Rob Surber, MIC, reported that MIC put together statewide map base with the higher resolution (30 meter) Digital Elevation Models (DEMs) and hill shading. They are doing testing on statewide color pallets. When that is finalized, they will make it available. MIC did not use the higher resolution on the previous statewide elevation map.

## IX. MSU Center for Remote Sensing and GIS Projects and Activities

Bill Enslin, MSU, reported that they are struggling with finalizing the next version of the viewer. They have done several things to improve the interface. The legend control is similar to ArcVIEW and ArcIMS so that that legend can be customized so that every theme does not need to be shown. It now allows alias names for themes in the viewer. Now there is an option for big tool buttons; global search; smoother for novice user to add own themes; and add business shape files. Worked with Everett Root, MIC, to stabilize forms going out to standardize field names. This will be the first version without a Themer ID. When this is wrapped up, they will be contacting previous owners to arrange for updates.

Kathleen Weessies, MSU, encouraged people not to overdo the vertical exaggeration when mapping statewide elevation. Foreigners are mislead and they think Michigan is a mountainous state.

## X. County / Local Projects and Activities

Jeroen Wagendorp, Allegan County, reported that he met with Bill Enslin, MSU, and they are working on bugs in the viewer that will be important for local appeal. MDOT is reintroducing their old photography in paper format, scanned in, and slapping behind current new stuff and Allegan County is doing the same thing. The county is now in the process of cutting the geography out of the legal text and trying to create raster backdrops to all sub-divisions. This summer when they have interns, they plan to start a point address file for the county. They have 20 zip codes for Allegan County and they want to provide aerial imagery and parcel data and their current address database. Hoping to get a point file for every occupied structure that gets mail and reverse engineer address ranges from that. Well Logs throughout the state have addresses but elevation of the well head is typically lacking. Most wells are within 10-20 feet of

the house. With the house location and house elevation, the field can be filled in. All static water mapping can then be done.

Bill Enslin, MSU, added that this has a host of other applications, for example housing in rural areas who is at risk of forest fire.

Jeroen Wagendorp, Allegan County, commented that if you compare the point structure file with the census blocks (counts per blocks) you can ascertain the average occupancy in the census block per structure. Still fighting with 9-1-1 about address ranging which doesn't work in the real context. Now they are looking for computer aided dispatch software that can handle point files rather than address ranges.

## XI. Regional Projects and Activities

Ann VanSlembrouck, SEMCOG, reported that they are working on Census Bureau block attributes and realized that there is a lot to do when get repositioned because of arcs that being added to close polygons.

Rob Surber, MIC, asked if MIC can work with SEMCOG on that. If connecting to common point Ids, may be able to use that as a key. MIC did this with Wayne County. MIC has to reposition Wayne centerline, but they had common intersection Ids and MIC was able to snap it. Months of work were cut down. There will be work but might be ways to do it.

Ann VanSlembrouck, SEMCOG, stated that they are working Oakland County and all the other counties are done except for Wayne. They stopped finalizing the work until they get Version 2. They are still prepping Wayne County.

Rob Surber, MIC, offered a pre-release of a county for SEMCOG to test. MIC is interested in a block file in order to see how to utilize it to capture more of the address ranges that may be updated.

Ann VanSlembrouck, SEMCOG, added that one of the other projects they are working on is the looking at the shoreline because issues came up when people started using the new Version 1b. Some of the staff uses detailed shoreline and others want a general shoreline. SEMCOG is going to create two different shorelines.

Rob Surber, MIC, stated that MIC is lumping that into the hydro discussion and how to deal with shoreline in general. Where we go from there will help determine the next step.

Ann VanSlembrouck, SEMCOG, added that the GIS Department is hoping that they do not get just black and white 1:24,000 aerial photos for the 2005 flight. They are researching talking to the 7 county GIS people in their region to determine if a common flight is reasonable. They are finding that most people need DOQ 6" pixel resolution. Also looking at satellite imagery. Finding that people want something they can delineate wetlands from. Will talk to consulting firms about prices. They starting research because Wayne County gave SEMCOG an unofficial request to research this.

Jeroen Wagendorp, Allegan County, commented that Livingston County is in process of updating their color 6" DOQs. The files are incredibly huge. Pushing ahead of hardware to deal with data.

Ann VanSlembrouck, SEMCOG, added storage for 7 counties of that would be difficult.

Rob Surber, MIC, suggested that a re-sampled version for general use and then go to the original from time to time.

Jeroen Wagendorp, Allegan County, stated that Oakland is playing with digital ortho imagery acquisition bypassing the conventional scanning stuff. They have already done the qualitative comparisons. If meets their standards, it might be good enough.

Ann VanSlembrouck, SEMCOG, added that she met with Steve Perry, Wayne County, and Andrew Brenner, Space Imaging. Andrew Brenner stated that Oakland County gave him images to extract land cover off of. The calibration was different for each image. So may spend

\$50,000 for images and \$75,000 to get land use coverage off of it. SEMCOG will do the research and see what develops. Another project is that the transportation staff found a federal database showing rails crossing with highways. So now they want it turned into a coverage and do analysis.

Abbi Mueller, West Michigan Regional Planning Commission (WMRPC), reported they are trying the Army Corps of Engineers to get shoreline land use data for the Ottawa County shoreline. Also looking Allegan County data because within a year they will extend the shoreline – this will be Phase 2.

## XII. Federal Projects and Activities

Julie White, U.S. Bureau of the Census, reported that they are creating a database of available digital files for Homeland Security. Michigan was easy - received MIC's metadata. They then submit files to headquarters. Don't know what the timeline is.

Rob Surber, MIC, added that MIC will give them the Version 2 repositioning line work. Can now send a statewide version. Can also send metadata related to positional accuracy. MIC is trying to capture TIGER line ID linkages between files for new stuff and hope that it will create more keys that working together will help down the road.

## XIII. Other Issues

None.

## XIV. Next Meeting Date

May 9, 2002, 10 a.m. until 12 p.m., Michigan Center for Geographic Information, George W. Romney Building, 111 S. Capitol, 10<sup>th</sup> Floor, Lansing, MI 48933

\*\* If any changes or corrections are to be made to these minutes, please contact the Michigan Information Center at (517) 373-7910. Changes and corrections will be noted on the final copy to be post on MIC's web site.